Kombinatorikus és geometriai valószínűség, szitaformula

1. (a) $\overline{A}$ (b) $B \cap C$ (c) $\overline{A} \cap \overline{B} \cap \overline{C}$, avagy $\overline{A \cup B \cup C}$

2. (a) $1 - \dfrac{\binom{24}{8}}{\binom{32}{8}}$ (b) $\dfrac{\binom{16}{8}}{\binom{32}{8}}$ (c) $1 - 3 \cdot \dfrac{\binom{24}{8}}{\binom{32}{8}} + 3 \cdot \dfrac{\binom{16}{8}}{\binom{32}{8}} - \dfrac{\binom{8}{8}}{\binom{32}{8}}$

3. $1/2$

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4. $1/9$ és $5/12$

5. $2/\pi$

6. $$\frac{\binom{50}{5} + \binom{45}{5} + \binom{71}{5} - \binom{25}{5} - \binom{31}{5} - \binom{36}{5} + \binom{16}{5}}{\binom{90}{5}}$$

7. $2/3$

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8. (a) $A \cap \overline{B}$ és $1/18$ (b) $A \cup \overline{A}$ és 1 (c) $A \cap \overline{A}$ és 0

9. $1/2$

10. –

11. $$\frac{\binom{6}{4} \cdot \binom{9}{6}}{\binom{15}{10}}$$

12. (a) $\dfrac{\binom{10}{5}}{9 \cdot 10^4}$ (b) $\dfrac{\binom{13}{5}}{9 \cdot 10^4}$